

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT Housing—Federal Housing Commissioner		STRUCTURAL ENGINEERING BULLETIN NO. 916 Rev. 5 (Supersedes issue dated April 18, 1994)
TO: DIRECTOR, HOUSING DIVISION DIRECTOR, MULTIFAMILY DIVISION DIRECTOR, SINGLE FAMILY DIVISION		ISSUE DATE: February 11, 1998 REVIEW DATE: February 11, 2001
SUBJECT: 1. Item Description Shop Fabricated "SpaceJoist" Parallel Chord Trusses 2. Name and address Truswal Systems Corporation of Manufacturer 1101 N. Great S.W. Parkway Arlington, TX 76011		

This Structural Engineering Bulletin (SEB) should be filed with other SEBs and related Bulletins on materials or products as required by prescribed procedures.

The technical description, requirements and limitations expressed herein do not constitute an endorsement or approval by the Department of Housing and Urban Development (HUD) of the subject matter, and any statement or representation, however made, indicating approval or endorsement by HUD is unauthorized and false, and will be considered a violation of the United States Criminal Code, 18 U.S.C. 709.

NOTICE: THIS BULLETIN APPLIES TO DWELLING UNITS BUILT UNDER HUD HOUSING PROGRAMS. NON-HUD INSURED UNITS MAY OR MAY NOT BE IN CONFORMITY WITH THE REQUIREMENTS OF THE HUD MINIMUM PROPERTY STANDARDS.

Any reproduction of this Bulletin must be in its entirety and any use of all or any part of this Bulletin in sales promotion or advertising is prohibited.

1. General:

This Bulletin sets forth specific requirements under the Technical Suitability of Products Program for determining the eligibility of housing to be constructed under HUD mortgage insurance, or other HUD housing programs.

2. Scope:

This Bulletin applies only to the structural features of this method of construction. Final determination of eligibility is made by the appropriate HUD Field Office. Other factors considered by the Field Office will be valuation, location, architectural planning and appeal, mechanical equipment, thermal characteristics, and market acceptance. Consideration is also necessary to determine whether a specific property will qualify under the specific HUD program, when constructed according to the method outlined in this Bulletin, and where the structure is to be located.

In geographical areas subject to hurricanes, earthquakes, or other unusually severe conditions affecting dwelling structures, the HUD Field Office shall require additional safeguards in the proposed designs, when necessary.

3. Minimum Property Standards (MPS):

Compliance with HUD MPS will be determined by the HUD Field Office on the same basis as submissions involving conventional construction, except for the special features described in this Bulletin.

4. Inspection:

Field compliance inspections covering conventional items of construction, and any special features covered in this Bulletin shall be made in accordance with prescribed procedures.

The appropriate HUD Field Office shall furnish a copy of a HUD field inspection report to Headquarters, Manufactured Housing and Standards Division, Office of Consumer and Regulatory Affairs, when there is:

- a. Evidence of noncompliance with any portion of the system of construction described in this Bulletin.
- b. Faulty shop fabrication, including significant surface defects.
- c. Damage to shop fabricated items or materials due to improper transportation, storage, handling, or assembly.
- d. Unsatisfactory field workmanship or performance of the product or system.
- e. Any significant degradation or deterioration of the product or evidence of lack of durability or performance.

Periodic plant inspections will be made by HUD Field Office or State Agency personnel in accordance with their prescribed procedures. Factory inspection reports shall be submitted to HUD Headquarters, and any Field office, upon request.

5. Certification:

The manufacturer named in this Bulletin shall furnish the builder with written certification stating that the product has been manufactured in compliance with the HUD Minimum Property Standards (MPS), except as modified by this Bulletin. The builder shall endorse the certification with a statement that the product has been erected in compliance with HUD MPS except as they are modified by this Bulletin, and that the manufacturer's certification does not relieve the builder, in any way, of responsibility under the terms of the Builder's Warranty required by the National Housing Act, or under any provisions applicable to other housing program. This certification shall be furnished to the HUD Field Office, upon completion of the property.

OUTLINE DESCRIPTION:

General

This Bulletin provides for the use of "SpaceJoist" for floors, roofs and decks.

PRODUCT DESCRIPTION:

The "SpaceJoist" is a composite wood and steel truss, with parallel top and bottom chords. Struts are steel stampings, galvanized S.A.E 1010 or better, with teeth formed integral in the struts. Teeth are identical with the Truswal R5000 series connector plate. The struts are designed and tested to meet the requirements of HUD Minimum Property Standards and the Truss Plate Institute. Top and bottom wood chords are stress-graded Southern Pine, Douglas Fir, Hem-Fir or Spruce-Pine-Fir. These chords may be 2" x 3" or 2" x 4", depending on the span and load requirements as specified in Truswal SpaceJoist Span Tables. Struts are formed as a "V" section with the teeth stamped at the apex and the two ends of the "V". The pitch or spacing of the struts is always 24", except for 16V20 part which has a pitch or spacing of 28".

"SPACEJOIST" DESIGN MANUAL:

The Truswal Systems Corporation, SpaceJoist Design Manual, dated 1985, covers design, specifications, construction details, and floor and roof load tables. The Design Manual is an integral part of this Bulletin. A complete set of fabrication drawings and load tables shall be furnished to the HUD Field Office with each application.

MANUFACTURING PLANT:

- (1) Engineering and manufactured SpaceJoist hardware are provided by the following plant:

Truswal Systems Corp.
400 Park Avenue
Princeton, KY 42445
Phone: (502) 365-7141

The Louisville HUD Office will inspect the above plant in accordance with prescribed procedures.

Future manufacturing plants providing the complete SpaceJoist truss units, franchised by Truswal Systems Corporation are subject to inspection by HUD Field Offices. Issuance of this Bulletin obligates the prime manufacturer to provide the Manufactured Housing and Standards Division, Office of Consumer and Regulatory Affairs, HUD Headquarters with a current list of addresses of franchised manufacturing plants. The list of plants shall be updated and forwarded to HUD Headquarters at intervals not to exceed one year.

QUALITY CONTROL:

The appropriate HUD Field Office in whose jurisdiction the manufacturing plant is located shall review and approve plant fabrication procedures and quality control program, and shall report to HUD Headquarters in accordance with outstanding instructions. The quality control program shall include field erection and supervision by Truswal Systems Corporation.

RECORD OF PROPERTIES:

The manufacturer shall provide a list of the first ten (10) properties in which the component or system described in this Bulletin is used. The list shall include the complete address, or description of location, and approximate date of installation or erection. Failure of the manufacturer to provide HUD with the above information, may result in cancellation of this Bulletin.

NOTICE OF CHANGES:

The manufacturer shall inform HUD in advance of changes in production facilities, transportation, field erection procedures, design, or of materials used in this product. Further, HUD must be informed of any revision to corporate structure, change of address or change in name or affiliation of the prime manufacturer. Failure of the manufacturer to notify HUD of any of the above changes may result in cancellation of this Bulletin.

EVALUATION:

This SEB shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this SEB shall apply for a renewal or revision 90 days prior to the Review Date printed on this SEB. Submittals for renewal or revision shall be sent to HUD Headquarters. Appropriate User Fee shall be sent to:

U.S. Department of Housing and Urban Development
Technical Suitability of Products Fees
P.O. Box 954199
St. Louis, MO 63195-4199

The holder of this SEB may apply for revision at any time prior to the Review Date. Minor revisions may be in the form of a supplement.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of the SEB. HUD will notify the manufacturer that the SEB may be canceled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
2. the manufacturer has changed its organizational form without notifying HUD, or
3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the SEB should not be canceled. No refund of fees will be made on a canceled document.

This Structural Engineering Bulletin is issued solely for the captioned firm and is not transferable to any person or successor entity.
